

ABSTRACT OF THE DISCLOSURE

A medical laser apparatus comprises: a solid laser oscillating source which emits a beam of a wavelength λ_1 in an infrared region of approx. 1040 nm to approx. 1080 nm; a first fiber-based Raman shifter including a 5 first Raman fiber which generates, when receives the λ_1 -beam from the laser oscillating source, a first-order Stokes beam of a wavelength λ_2 different from the wavelength λ_1 by stimulated Raman scattering, the first Raman fiber being formed with a pair of fiber Bragg gratings which forms a resonator for the λ_2 -beam; a first nonlinear crystal which 10 wavelength-converts the λ_2 -beam outputted from the first Raman wavelength shifter to a second harmonic beam of a wavelength λ_2' in an orange region of approx. 580 nm to approx. 600 nm; and a light guiding optical system which guides the λ_2' -beam to a treatment part.